

## 016

**Impact of low molecular weight-heparin on bleeding complications and one-year survival in elderly patients with acute myocardial infarction. The FAST-MI registry**

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**Background:** There are limited data on the safety and efficacy of low molecular weight heparin (LMWH) in elderly patients with ACS.

**Aim:** To compare LMWH with unfractionated heparin (UFH) in the management of acute MI in elderly patients.

**Methods:** FAST-MI is a nationwide registry carried out over a 1-month period in 2005, including consecutive patients with AMI admitted to ICUs < 48 hours from symptom onset in 223 participating centers. We assessed the impact of LMWH on bleeding, the need for blood transfusion and 12-month survival in elderly patients (75 years of age or older).

**Results:** 968 patients treated with heparin were included (Mean age 82 ± 5 years; 51% women; 42.5% STEMI). Major bleeding (2.4% vs 6.1%,  $P=0.004$ ) and blood transfusions (4.6% vs 9.7%,  $P=0.002$ ) were significantly less important with LMWH compared with the UFH, a difference that persisted after multivariate adjustment (OR=0.41, 95% confidence interval: 0.20-0.83, and OR=0.49, 95% confidence interval: 0.28-0.85, respectively).

One-year survival and stroke and reinfarction-free survival were also significantly higher with LMWH compared with UFH (OR=0.66, 95% confidence interval: 0.50-0.85 and OR=0.71, 95% confidence interval: 0.56-0.91, respectively). In two cohorts of patients matched on a propensity score for getting LMWH and with similar baseline characteristics, major bleeding, transfusion and one-year mortality were also significantly lower in patients receiving LMWH.

**Conclusion:** The present data show that in elderly patients admitted for AMI, use of LMWH is associated with less bleeding, less need for transfusion, and higher survival, compared with the use of UFH.

## 017

**Aldosterone receptor blockade at presentation for ST elevation myocardial infarction is associated with a reduction in potentially lethal ventricular arrhythmia**

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**Title:** Aldosterone receptor blockade at presentation for ST elevation myocardial infarction is associated with a reduction in potentially lethal ventricular arrhythmia

**Purpose:** To assess the benefit of aldosterone receptor blockade on admission for primary PCI for STEMI.

**Methods:** 806 consecutive patients admitted within 12 hours after onset of a STEMI for primary PCI were studied. The latest 111 patients were systematically treated by 200 mg IV potassium canrenonate at presentation, followed by soludactone 25 mg daily during the hospital stay. The association between aldosterone receptor blockade and in-hospital death, ischemic events and ventricular arrhythmia was assessed using a logistic model adjusted on age, Killip class and reperfusion status. Follow-up was completed in 97% and 96% of patients at 30 days and 6 months.

**Results:** Results are depicted in the table. Baseline characteristics were not different between the 2 groups (age 63±14 vs 62±15, successful reperfusion 87% vs 90% and Killip class IV 5% in both groups). Aldosterone receptor blockade was associated with significantly lower rates of ventricular

arrhythmia with an adjusted OR of 0.18 (95% CI 0.07- 0.47) and 0.25 (95% CI 0.11-0.57) for the ventricular tachycardia and ventricular tachycardia or fibrillation respectively, and a trend towards lower rates of resuscitated cardiac arrest and high grade atrioventricular block. Mortality rates at 30 days (6 vs 6.7%) and 6 months (6.8 vs 7%) were comparable between the groups.

**Conclusions:** Aldosterone receptor blockade at presentation for STEMI is associated with a marked reduction of the risk of potentially lethal ventricular arrhythmia. These findings underline the anti-arrhythmic effect of aldosterone blockade and the need for adequately sized randomized trials to assess the benefit of such strategy on major cardiovascular events.

	No aldosterone blockade (n=695)	Aldosterone blockade (n=111)	p
In-hospital Death	5.3%	6.31%	NS
Resuscitated cardiac arrest	7.2%	6.4%	NS
Death or resuscitated cardiac arrest	8.4%	7.3%	NS
Recurrent ischemia	5%	3.6%	NS
V tach-V Fib	25.6%	7.3%	<0.0001
V tach	24.6%	5.45%	<0.00001
High grade AV block	5.8%	1.8%	0.08

## 018

**Acute coronary syndrome with normal coronary arteries. A prognostic study with cardiac magnetic resonance imaging at 3-Tesla**

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**Aims:** Acute coronary syndrome (ACS) with normal coronary angiography is a frequent clinical situation with an uncertain prognosis. Cardiac magnetic resonance imaging (CMRI) is a powerful tool for differential diagnosis between myocardial infarction (MI), acute myocarditis and Tako-tsubo cardiomyopathy (TTC). However, CMRI can remain uninformative in many patients who have no detectable coronary lesion. Data are sparse regarding the prognosis of patients presenting an ACS with normal coronary arteries on CMRI.

**Methods:** Seventy-nine consecutive patients (mean age 53 years, 39.2 % male) presenting an ACS with troponin elevation and normal coronary angiography were prospectively included. All patients underwent CMRI at 3-Tesla within 3 weeks of initial presentation. Adverse events were recorded with a follow-up of 6 months.

**Results:** An identifiable basis for ACS was established by CMRI in 69.6% of patients (27.8% MI, 29.1% acute myocarditis, 12.7% TTC). Only troponin level was significantly different between patients with normal vs abnormal CMRI ( $3.48 \pm 4.3$  vs  $11.86 \pm 11.99$  mg/L, respectively,  $p = 0.0028$ ). During the follow-up, 1 patient in the MI group suffered stroke (1.26%). In the myocarditis group, there was 1 episode of congestive heart failure (1.26%) and 7 patients had recurrent chest pain without troponin elevation (8.6%). Two patients in the TTC group initially presented with cardiogenic shock (2.53%), but there were no adverse events in this group during follow-up. In the remaining 30.2 % patients, no clear diagnosis could be identified by CMRI, and no adverse events occurred during follow-up.

**Conclusion:** CMRI is a useful tool for the management of ACS presenting with normal coronary angiography, as it helps to ascertain diagnosis and to adapt treatment in a large proportion of cases. Nonetheless, patients with no anomalies identified by CMRI have an excellent prognosis, without need for specific treatment.